

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): Receiver device for optical data signals, in particular optical data signals in the Gb/s range, comprising:

an opto-electrical conversion unit, which converts an optical signal, that is received from a source external to said receiver device, to a converted electrical data signal;

a frequency multiplier unit, which frequency-multiplies the converted electrical data signal, thereby producing a frequency-multiplied signal; and

a clock recovery unit comprising a phased locked loop circuit,

wherein the frequency-multiplied signal is used to drive the phase locked loop circuit;

wherein the frequency multiplier unit performs a frequency multiplication by a factor of n , with n being a natural number larger than 2,

wherein the receiver device comprises a frequency filter for the spectral power of the electrical data signal, and

wherein the frequency filter transmits around B/n , wherein B is the bit rate of the electrical data signal, and

wherein said frequency multiplication is an analog signal processing technique.

2. (canceled).

3. (original): Receiver device according to claim 1, wherein $n=4$.
4. (previously presented): Receiver device according to claim 1, wherein the optical data signals are 10 Gb/s signals or 40 Gb/s signals.
5. (original): Receiver device according to claim 1, wherein the clock recovery unit comprises a phase locked loop circuit.
6. (original): Receiver device according to claim 1, wherein the clock recovery unit comprises a filter clock recovery circuit.
7. (original): Data transmission system comprising an optical transmission link, in particular an optical fiber system, wherein the optical transmission link has a significant dispersion, and a receiver device according to claim 1.
8. (currently amended): A computer-readable medium encoded with a computer program which causes a computer to generate a clock signal out of an electrical data signal that is received by a receiver, in particular out of an electrical signal in the Gb/s range,
wherein the electrical data signal is subjected to a frequency multiplication by a factor of n , with n being a natural number larger than 2, in particular $n=4$, thereby producing a frequency-multiplied signal,
wherein the frequency-multiplied signal is used to drive a phase locked loop circuit;

wherein the electrical data signal is filtered by a frequency filter for the spectral power of the electrical data signal,

wherein the frequency filter transmits around B/n , wherein B is a bit rate of the electrical data signal, and

wherein the electrical data signal is converted from an optical signal that is received from a source external to said receiver device, and

wherein said frequency multiplication is an analog signal processing technique.